



RAW SEQUENCE LISTING

DATE: 07/24/2002

PATENT APPLICATION: US/09/852,000A

TIME: 14:17:08

Input Set : A:\soei500502.txt

Output Set: N:\CRF3\07242002\I852000A.raw

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3 <110> APPLICANT: Osumi, Takashi
4     Tsukamoto, Toshiro
5     Tsukamoto, Noriyo
6     Yamasaki, Masatoshi
8 <120> TITLE OF INVENTION: GREEN FLUORESCENT PROTEINS AND BLUE FLUORESCENT
9     PROTEINS
11 <130> FILE REFERENCE: 046124-5005-02-US
13 <140> CURRENT APPLICATION NUMBER: 09/852,000A
14 <141> CURRENT FILING DATE: 2001-05-10
16 <150> PRIOR APPLICATION NUMBER: 09/615,655
17 <151> PRIOR FILING DATE: 2000-07-13
19 <150> PRIOR APPLICATION NUMBER: JP 026418/1998
20 <151> PRIOR FILING DATE: 1998-01-23
22 <150> PRIOR APPLICATION NUMBER: 09/121,539
23 <151> PRIOR FILING DATE: 1998-07-24
25 <160> NUMBER OF SEQ ID NOS: 15
27 <170> SOFTWARE: PatentIn Ver. 2.0
29 <210> SEQ ID NO: 1
30 <211> LENGTH: 238
31 <212> TYPE: PRT
32 <213> ORGANISM: Aequorea victoria
34 <220> FEATURE:
35 <223> OTHER INFORMATION: Green fluorescent protein
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39   1             5             10             15
41 Glu Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu
42   20             25             30
44 Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys
45   35             40             45
47 Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Phe
48   50             55             60
50 Ser Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Gln
51  65             70             75             80
53 His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg
54   85             90             95
56 Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val
57   100            105            110
59 Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile
60   115            120            125
62 Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn
63   130            135            140
65 Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly

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66 145                      150                      155                      160
68 Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser Val
69                      165                      170                      175
71 Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro
72                      180                      185                      190
74 Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser
75                      195                      200                      205
77 Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe Val
78                      210                      215                      220
80 Thr Ala Ala Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys
81 225                      230                      235
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87 <213> ORGANISM: Artificial Sequence
89 <220> FEATURE:
90 <223> OTHER INFORMATION: Description of Artificial Sequence: cloning primer
92 <400> SEQUENCE: 2
93 tcgtgaccac cttctccac ggcgtgca                                28
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98 <212> TYPE: DNA
99 <213> ORGANISM: Artificial Sequence
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102 <223> OTHER INFORMATION: Description of Artificial Sequence: cloning primer
104 <400> SEQUENCE: 3
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111 <213> ORGANISM: Artificial Sequence
113 <220> FEATURE:
114 <223> OTHER INFORMATION: Description of Artificial Sequence: cloning primer
116 <400> SEQUENCE: 4
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123 <213> ORGANISM: Artificial Sequence
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126 <223> OTHER INFORMATION: Description of Artificial Sequence: cloning primer
128 <400> SEQUENCE: 5
129 cgttgtggct gttgaagttg tactccagc                                29
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133 <211> LENGTH: 28
134 <212> TYPE: DNA
135 <213> ORGANISM: Artificial Sequence
137 <220> FEATURE:
138 <223> OTHER INFORMATION: Description of Artificial Sequence: cloning primer

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28

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209 <220> FEATURE:
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212 <400> SEQUENCE: 12

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221 <220> FEATURE:
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224 <400> SEQUENCE: 13
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229 <211> LENGTH: 239
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231 <213> ORGANISM: Artificial Sequence
233 <220> FEATURE:
234 <223> OTHER INFORMATION: Description of Artificial Sequence: Engineered green
235     fluorescent protein
237 <400> SEQUENCE: 14
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241 Val Glu Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly
242           20           25           30
244 Glu Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile
245           35           40           45
247 Cys Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr
248           50           55           60
250 Phe Thr Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys
251   65           70           75           80
253 Gln His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu
254           85           90           95
256 Arg Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu
257           100          105          110
259 Val Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly
260           115          120          125
262 Ile Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr
263           130          135          140
265 Asn Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn
266   145          150          155          160
268 Gly Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser
269           165          170          175
271 Val Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly
272           180          185          190
274 Pro Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu
275           195          200          205
277 Ser Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe
278           210          215          220
280 Val Thr Ala Ala Gly Ile Thr Leu Gly Met Asp Glu Leu Tyr Lys
281   225          230          235
284 <210> SEQ ID NO: 15
285 <211> LENGTH: 238

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286 <212> TYPE: PRT
287 <213> ORGANISM: Aequorea victoria
289 <220> FEATURE:
290 <223> OTHER INFORMATION: Blue Fluorescent Protein
292 <400> SEQUENCE: 15
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296 Glu Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu
297             20             25             30
299 Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys
300             35             40             45
302 Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Phe
303             50             55             60
305 Ser His Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Gln
306 65             70             75             80
308 His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg
309             85             90             95
311 Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val
312             100            105            110
314 Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile
315             115            120            125
317 Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn
318             130            135            140
320 Phe Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly
321 145            150            155            160
323 Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser Val
324             165            170            175
326 Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro
327             180            185            190
329 Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser
330             195            200            205
332 Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe Val
333             210            215            220
335 Thr Ala Ala Gly Ile Thr His Gly Met Asp Glu Leu Tyr Lys
336 225            230            235

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/852,000A

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STATISTICS SUMMARY

DATE: 07/24/2002

PATENT APPLICATION: US/09/852,000A

TIME: 14:17:10

Input Set : A:\soei500502.txt

Output Set: N:\CRF3\07242002\I852000A.raw

Application Serial Number: US/09/852,000A

Alpha or Numeric: Numeric

Application Class:

Application File Date: 05-10-2001

Art Unit: 1652

Software Application: PatentIN2.0

Total Number of Sequences: 15

Total Nucleotides: 340

Total Amino Acids: 715

Number of Errors: 0

Number of Warnings: 0

Number of Corrections: 0

MESSAGE SUMMARY